CLAIMS

1. An apparatus, comprising:

a connection table for storing one or more connection identifiers;

a receiver for receiving a connection identifier;

a processor for delivering a received connection identifier to the connection table for storing when the received connection identifier is not contained in the connection table; and

a transmitter for sending a registration in response to a received connection identifier when the received connection identifier is not contained in the connection table.

2. The apparatus of claim 1, wherein the connection identifier corresponds to a Packet Coordination Function (PCF).

3. The apparatus of claim 1, further comprising a timer, wherein the processor removes a connection from the connection table in response to an expiration of the timer.

4. The apparatus of claim 3, wherein the processor resets the timer in response to transmission by the transmitter on the connection associated therewith.

5. The apparatus of claim 3, wherein the processor clears the connection table when a connection is received corresponding to a Packet Data Serving Node (PDSN) that is different from a PDSN corresponding to a previously stored connection.

6. The apparatus of claim 3, wherein the processor clears the connection table when a clear table message is received by the receiver.

7. An apparatus, operable with a plurality of PCFs via a corresponding plurality of connections, each PCF operable to communicate with one or more wireless communication devices, the apparatus further operable with a network for directing data for transmission to one or more wireless communication devices, comprising:

a connection table for storing a plurality of connection sets, each connection set comprising one or more connections associated with a wireless communication device;

a processor for selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed from the network.

8. The apparatus of claim 7, further comprising a buffer for receiving data from the network, storing the received data, and transmitting the stored data on the selected connection.

9. The apparatus of claim 7, wherein an active connection identifier is stored in the connection table to identify zero or one active connection for each wireless communication device.

10. The apparatus of claim 9, wherein the processor selects all of the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

11. The apparatus of claim 9, wherein the processor selects a subset of the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

12. The apparatus of claim 9, wherein the processor selects the most recent active connection from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

13. The apparatus of claim 9, wherein the processor selects one or more connections randomly from the connections associated with a wireless communication device for transmission to the wireless communication device when no connection for the wireless communication device is identified as active.

14. The apparatus of claim 7, further comprising a plurality of timers corresponding to the plurality of stored connections, wherein the processor removes a connection from the connection table upon expiration of one of the plurality of timers associated with the connection.

15. The apparatus of claim 14, wherein the processor resets one of the plurality of timers in response to an activity indicator associated with the mobile station on the corresponding connection.

16. An apparatus, operable with a PDSN and a plurality of wireless communication devices, comprising:

a receiver for receiving a transmission from a wireless communication device;

a processor for establishing a connection with the PDSN associated with the wireless communication device in response to a received transmission containing a registration;

a first transmitter for sending an inactive message to the PDSN on the connection when a pre-determined time period has lapsed since a transmission is received from the mobile station.

17. The apparatus of claim 16, further comprising a second transmitter for transmitting a clear table message to the wireless communication device when the PDSN is different from a PDSN identified in a received transmission from the wireless communication device.

18. A wireless communication system, comprising:

a wireless communication device for receiving a connection identifier, storing the received connection identifier in a connection table, and transmitting a registration when the received connection is not contained in the connection table;

a Packet Coordination Function (PCF) for receiving a transmission from the wireless communication device and initiating a PDSN connection in response to a received transmission containing a registration; and

a Packet Data Serving Node (PDSN) for establishing a PDSN connection with the PCF, associated with the wireless communication device, in response to a PDSN connection initiation, storing the connection in one of a plurality of connection sets in a

connection table, each connection set comprising one or more connections associated with a wireless communication device.

19. The wireless communication system of claim 18, wherein the PDSN further selects a connection from the one or more connections in a connection set associated with a wireless communication device for transmission of data directed to the wireless communication device.

20. A method of registering and maintaining connections, comprising:

receiving a connection identifier;

registering a connection in response to a received connection not contained in a connection table; and

storing the received connection identifier in the connection table when the connection is not contained in the connection table.

21. The method of claim 20, further comprising removing a connection from the connection table in response to expiration of an associated timer.

22. The method of claim 20, further comprising:

receiving a clear table message; and

clearing the connection table in response to the clear table message.

23. A method of registering and maintaining connections, comprising:

establishing one or more connections with one or more PCFs;

storing a plurality of connection sets in a connection table, each connection set comprising one or more connections with a PCF and associated with a wireless communication device; and

selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed.

24. The method of claim 23, further comprising buffering the data and transmitting the buffered data on the selected connection to the wireless communication device.

25. The method of claim 23, further comprising maintaining a plurality of timers corresponding to the plurality of stored connections and removing a connection from the connection table upon expiration of one of the plurality of timers associated with the connection.

26. A method of registering and maintaining connections, comprising:

receiving a transmission from a wireless communication device;

establishing a connection between a PCF and a PDSN associated with the wireless communication device in response to the received transmission when it contains a registration; and

transmitting an inactive message to the PDSN on the connection when a pre-determined time period has lapsed since a transmission is received from the mobile station.

27. The method of claim 26, further comprising transmitting a clear table message when the PDSN is different from a PDSN identified in a received transmission from the wireless communication device.

28. An apparatus, comprising:

means for receiving a connection identifier;

means for storing the received connection identifier in a connection table when the connection is not contained in the connection table; and

means for registering a connection in response to a received connection not contained in the connection table.

29. An apparatus, comprising:

means for establishing one or more connections with one or more PCFs;

means for storing a plurality of connection sets in a connection table, each connection set comprising one or more connections with a PCF and associated with a wireless communication device; and

means for selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed.

30. An apparatus, comprising:

means for receiving a transmission from a wireless communication device;

means for establishing a connection between a PCF and a PDSN associated with the wireless communication device in response to the received transmission when it contains a registration; and

means for transmitting an inactive message to the PDSN on the connection when a pre-determined time period has lapsed since a transmission is received from the mobile station.

31. Processor readable media operable to perform the following steps:

receiving a connection identifier;

storing the received connection identifier in a connection table when the connection is not contained in the connection table; and

registering a connection in response to a received connection not contained in the connection table.

32. Processor readable media operable to perform the following steps:

establishing one or more connections with one or more PCFs;

storing a plurality of connection sets in a connection table, each connection set comprising one or more connections with a PCF and associated with a wireless communication device; and

selecting a connection from the one or more connections in a connection set associated with a wireless communication device for which data is directed.

33. Processor readable media operable to perform the following steps:

receiving a transmission from a wireless communication device;

establishing a connection between a PCF and a PDSN associated with the wireless communication device in response to the received transmission when it contains a registration; and

transmitting an inactive message to the PDSN on the connection when a pre-determined time period has lapsed since a transmission is received from the mobile station.